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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/823,815	03/30/2001	John D. Porter	CT-F139 US	6595

7590 11/28/2003
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EXAMINER

GUHARAY, KARABI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/823,815		PORTER ET AL.	
	Examiner		Art Unit	
	Karabi Guharay		2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-96 is/are pending in the application.
- 4a) Of the above claim(s) 29-96 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-28 is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7 and 8 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8/22/01</u> . | 6) <input checked="" type="checkbox"/> Other: <i>IDS, filed on 08/09/01</i> . |

Election/Restrictions

Applicant's election with traverse of Group 1b, filed on 22 August 2003, is acknowledged.

Upon reconsideration, based on applicant's arguments, examiner will include claims 1-20 of group 1a in the elected Group 1b having claims 21-28.

Claims 29- 96 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species of Group 1c, Group 1d, Group 1e, Group 1f and nonelected Group II, there being no allowable generic or linking claim.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement for these above groups, claims 29-96 are withdrawn without traverse.

Preliminary Amendment, filed on 03 April 2002 has been considered and entered.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Reference # 74 in Fig 6d, as disclosed in specification, page 34, paragraph [0107].

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "66" and "72" have both been used to designate phosphor particle, in Figs 6c-6e, Fig 7, Fig 8, Fig 11, Fig 12, Figs 13b-13e, Figs 14a-14e, Fig 15, Fig 16, Fig 17 and Fig 18. Reference numeral 66 should appropriately point out light emissive region instead of phosphor particle. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

Applicant is suggested to update the references used in specification;

(1) US patent application 09/087785, mentioned in specification page 56, by corresponding patent # 6,215,241.

(2) US patent application 09/823872, Attorney Docket No. CT-F137US, mentioned in page 58 of specification, by patent # 6630786.

The disclosure is objected to because of the following informalities:

(1) In specification, page 31, paragraph [0098], "region 48" should be changed to region 58, in accordance with Fig 4.

(2) In page 76 of specification, paragraph [0214], Fig 13c should be changed to Fig 13d.

(3) In page 77 of specification, paragraph [0216] Fig 13d should be changed to Fig 13c.

(4) In page 78 of specification, paragraph [0218], in both occurrence (line 4 and also in line 15) Fig 13d should be changed to Fig 13e.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5, 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Petersen et al. (US 5844361, hereinafter Petersen).

Regarding claim 1, Petersen discloses a structure (see Fig 1-5) comprising a plate (170, 270, 370, 470, 570), a light emissive region (the lower surface of the plate) overlying light transmissive material (plates 170-570, made of glass, see lines 9-11 of column 2) and comprising plurality of light-emissive particles (phosphor particles 212-512 of Figs 2-5) each having an outer surface and a group of coatings (514 of Fig 5, lines 36-40 of column 6) each generally conformally overlying part of the outer surface of a corresponding different one of the light emissive particles (512) so as to be spaced apart from where that light emitting particle (512) is closest to the plate 570 (see Fig 5, and lines 27-32 of column 5).

Though Petersen doesnot explicitly mention that the coating 514 is light reflective, it is inherent since Petersen teaches stannic oxide (see line 40 of Column 6) as a material for the coating, which is an infrared light reflective material.

Regarding claim 2, Petersen discloses a light-reflecting layer (layer 316 of Fig 3, made of Aluminum, see lines 47-52 of column 4) overlying the light reflective coating above the light transmissive region (see lines 50-52 of column 5), the light reflective layer being generally flat where it overlies the light emissive region (see Fig 3).

Regarding claim 5, Petersen discloses that the light-emissive particles comprise metal sulfide phosphors (see lines 55-57 of column 2).

Regarding claim 7, Petersen discloses that the structure (see Fig 1) further include an electron emitting device (130) comprising electron emitting regions (160) for emitting electrons which pass through the light reflective coatings and cause the light-emissive particles to emit light (lines 1-16 of column 2).

Regarding claim 8, Petersen discloses that the light reflective coatings 514 reduce the damage that occurs to the light emissive particle (sulfide phosphor core 512) as electrons emitted by the electron-emissive region impinge on the light emissive particles (lines 23-36 of column 6).

Allowable Subject Matter

Claims 3-4 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 9-28 are allowed over the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 3-4 and 6, the prior art of record neither shows nor suggests a structure comprising the combination of limitations of claim 3, particularly comprising a group of reflecting coatings consisting largely of metal, conformally overlying on a part of the outer surface of a corresponding different one of the light emissive particle so as to be spaced apart from where that light emissive particle is closed to the plate.

Claims 4 and 6 are dependent on claim 3.

Regarding claim 9, the prior art of record neither shows nor suggests a structure having combination of limitations set forth in claim 9, particularly a group of coatings comprising at least one group IIIB (13) metal, each coating generally conformally overlying on a part of the outer surface of a corresponding different one of the light emissive particles so as to be spaced apart from where that light emissive particle is closest to the plate.

Regarding claims 13, 15 and 17, the prior art of record neither shows nor suggests a structure having combination of limitations set forth in claims 13, 15 and 17, and particularly the limitation of a group of coatings comprising at least one of claimed group of metals in claims 13, 15 and 17, each coating generally conformally overlying on a part of the outer surface of a corresponding different one of the light emissive particles so as to be spaced apart from where that light emissive particle is closest to the plate.

Regarding claim 21, the prior art of record fails to teach or suggest a structure having combination of limitations set forth in claim 21, particularly including a group of getter coatings each generally conformally overlying on a part of the outer surface of a corresponding one of the light emissive particle so as to be spaced apart from where that light emissive particle is closed to the plate.

Claims 10-12, 14, 16, 18-20 and 22-28 are allowable for being dependent on allowed base claims.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure :

Gordon (US 4146657): teaches stannic oxide is an infrared light reflecting material.

Tsai (US 5670296); Yun et al. (US 6447908); Budd (US 5418062); Yamano (US 6604972).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (703) 305-1971. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

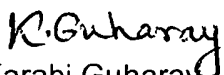
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Karabi Guharay
Patent Examiner
Art Unit 2879